

LOCAL GEOLOGICAL SITES

COLCHESTER DISTRICT



CoG10 Priors, Fingringhoe Sand & Gravel Pit

Site location: South of Fingringhoe.

Grid Reference: TM 030197 to TM 030199

Status: Private reserve, accessed from public footpath

Summary of the geological interest:

Cliff face from disused pit once worked by the Prior Family (using coasters to take aggregate from the Colne river at Fingringhoe Ballast Quay to London via the River Thames). Access to the cliff section lies within the regraded pit on private land adjacent to a public footpath separated by a hedge. An earth ramp built against the cliff going down to the pit floor allows safe and close-up access to cliff face. The condition of the cliff is almost vertical and fresh with minimal vegetation cover but some burrowing activity from animals and insect holes.



Site Assessment. Local Geological Sites (LoGS) in Essex are assessed using criteria based on DEFRA guidance. An assessment form is used which asks key questions under four value categories: scientific, educational, historical and aesthetic. This site has been assessed and qualifies under these criteria.

Scientific interest and site importance

The gravel therefore provides evidence of an exceptionally cold period of the Ice Age, a time when Essex was barren of virtually all life, in stark contrast to the abundant flora and fauna that can be seen at Fingringhoe Wick today.

A general description of the exposed deposit in the St Osyth Gravels, the uppermost part of the Kesgrave Sand & Gravels, is soft sand showing small cross laminations with occasional thin horizontal gravel horizons. There are however two approx. 1-metre-thick horizontal continuous layers where the gravel component is greater (approx. 30%). No evidence is visible of any palaeosols near the top of the cliff, but dark blueish clay has been smeared up some of the outcrop during regrading, likely to be London Clay from the pit floor.

Fingringhoe Wick has been cited as providing exposures of Lower St. Osyth Gravel and Upper St. Osyth Gravel (Bridgland 1994). The **Lower St. Osyth Gravel** was laid down by the River Thames when it flowed through central Essex, to the south of Colchester, and out across the low-lying land that is now the North Sea to become a tributary of the Rhine. Shortly afterwards the Anglian Ice Sheet blocked the valley of the Thames upstream and diverted the river to its present course. As the ice sheet spread into central Essex the former Thames valley became a channel for glacial meltwater which flowed across the Fingringhoe area laying down the **Upper St. Osyth Gravel**, a typical glacial outwash deposit. The junction between the two gravels therefore represents the point at which the Thames ceased to flow through central Essex. The Thames at that time was a very large, braided river and its diversion must have been a catastrophic event.

Priors Pit is an important replacement for the exposure at Fingringhoe Wick which is no longer accessible nor visible due to vegetation growth. There are very few other sites in Essex where glacial gravel (in this case the Upper St. Osyth Gravel) can be so readily examined.



*Photo of Priors Pit, east of Furneaux Lane taken from the road looking north.
This area has now been restored. Photo: B. Clough, 2022*



*View looking west over the graded pit
towards Cliff face*



Cross laminations



*London Clay (?)
smeared up cliff face*



Gravel rich horizon



*Thin Gravel bands in
soft sand*

Priors Pit, photos by Gerald Lucy February 2025



Priors Pit cliff face, February 2025. Photo: G. Lucy